SITUATION REPORT NO. 1
INCIDENT NO. 99-009
DATE: February 17, 1999 TIME: 12:00 p.m.

TO: Governor Edward T. Schafer
State Capitol
Bismarck, ND 58505

1. NATURE OF DISASTER: Spring flooding – Above normal soil moisture content throughout North Dakota, compounded by seven years of flooding, has resulted in a strong probability for overland and river flooding. Hydrologists for the National Weather Service (NWS) expect moderate to major spring flooding to occur in the Red and Sheyenne River Basins, severe flooding in the Devils Lake Basin and minor to moderate flooding in the Souris River Basin.

2. DEATHS AND INJURIES: None reported.

3. DAMAGES: The first Spring Snowmelt Flood Outlook, issued on February 12 by the Grand Forks office of the NWS, indicates that moderate to major flooding may occur this spring in the Red River Basin, from Grand Forks to the Canadian border. The outlook calls for moderate flooding to occur from the Red River's headwaters to south of Grand Forks. The Flood Outlook indicates that fall soil moisture content within the Red River Basin is above normal, and frost depths range from one to two feet. Snow depths measure from nine to 18 inches, and snow water equivalent amounts are to two to four inches.

   The Spring Snowmelt Flood Outlook also calls for moderate to major flooding to occur in the Sheyenne River Basin, from Kindred to the river's confluence with the Red River. Moderate flooding is expected for the remainder of the basin. Moderate flooding is also expected to occur along other tributaries in the Red River Basin. Forecasters call for moderate to major flooding in the Red Lake River Basin, from Crookston, Minn., to East Grand Forks, Minn. Moderate flooding is predicted for the remainder of the Red Lake River Basin.

   The NWS defines severe flooding as widespread inundation, requiring substantial resources from outside the local communities and record or near-record flooding. Major flooding is a general term that includes extensive inundation and property damage that is usually characterized by the evacuation of people and livestock and the closure of primary and secondary roads. Moderate flooding, according to the NWS, may result in the inundation of secondary roads, and require some evacuations and the transfer of property to high grounds. The risk for snowmelt flooding is determined by such factors as soil moisture, soil frost, snow water equivalency, river ice, predictions for future precipitation and the rate of snow melt. The NWS has indicated that this flood outlook is based on normal precipitation from now until spring snowmelt. Above normal precipitation and ice jams will increase the flood threat.

   The N.D. State Water Commission and the NWS have reported that a seventh year of severe flooding is expected to occur in the Devils Lake Basin this summer with the lake reaching a record high of 1,445.5 feet, 1.5 feet above its present elevation of 1,444 feet. The highest recorded level occurred in July 1998 when the lake rose to 1,444.7 feet. The forecast is based on current conditions and assumed normal precipitation and evaporation. The crest is expected to occur between June and early August. If below normal precipitation occurs, the lake may stay below 1,445.5 feet, and if above normal precipitation occurs, the lake will rise above the forecasted level. The Spring Snowmelt Flood Outlook indicates soil moisture continues to be above normal and snow depths range from four to eight inches, with water equivalents ranging from one to four inches.

   The State Water Commission reports the following changes are expected to occur if Devils Lake reaches 1,445.5 feet:

	Current Level	**Predicted Level**	**Increase**
Level (ft. msl)	1,444 feet	1,445.5 feet	1.5 feet
Area (acres)	106,452 acres	114,766 acres	8,314 acres
Volume (acre feet)	2,084,111 acre feet	2,250,578 acre feet	166,467 acre feet

Predicted inflows into Devils Lake represent the eighth largest net change in storage that has occurred since 1931, according to information provided by the State Water Commission. Highest inflow levels, year and amounts are as follows:

Highest Level	**Year**	**Amount in Acre Feet**
1st	1997	463,500
2nd	1995	343,000
3rd	1993	254,760
4th	1979	248,100
5th	1998	230,000
6th	1996	206,500
7th	1994	189,100
8th	1999	166,000 (Predicted)

The Spring Snowmelt Flood Outlook, issued by the Bismarck office of the NWS, indicates little chance for flooding exists in the Missouri River Basin and the chance for minor flooding exists in the James River Basin, based on normal moisture conditions for the next six weeks. However, the potential for ice jams to cause flooding on all waterways requires monitoring by local officials. Snow depths in the two river basins range from one inch in the southwest to nearly 10 inches in the east. Associated water equivalent amounts range from 0.5 to 2.0 inches. The NWS uses the term minor flooding to indicate that some public inconvenience may result, but minimal or no property damage is expected to occur.

The NWS reports that a chance for minor flooding exists within the Souris River Basin based on current snowpack. Snow depths range from two to 13 inches, and water equivalents are from one to three inches. Soil moisture is above normal. The flood threat increases to moderate if normal moisture conditions occur during the next six weeks.

In addition to Devils Lake and the Red River Basins, major flood danger areas appear to be in the southeast quarter of the state where high water tables will contribute to overland flooding.

4. RESOURCES:

LOCAL: Local agencies contributing to flood preparedness and response efforts include public works departments, law enforcement agencies, communications centers, emergency management offices, fire and rescue, ambulance, city and county commissions and administrative offices.

STATE: State Radio Communications, North Dakota Emergency Management, N.D. National Guard, N.D. Department of Health, N.D. State Water Commission and the N.D. Highway Patrol have provided support assistance to local authorities.

FEDERAL: National Weather Service, U.S. Geological Survey and U.S. Army Corps of Engineers are providing technical support assistance.

5. VOLUNTEER ACTION: Nine members of the N.D. Volunteer Agencies Active in Disaster (VOAD), representing six agencies, participated in a flood planning conference call on January 12 with their counterparts in Minnesota. Using a flood scenario in the Wahpeton-Breckenridge area, participants discussed procedures to establish disaster relief centers, to develop and maintain interagency cooperation, and to resolve potential problems caused by duplication of services. The VOAD will meet again in March.

6. MAJOR ACTIONS: State agency functional and task coordinators are scheduled to participate in orientation exercises at the newly-renovated Emergency Operations Center (EOC) at Fraine Barracks on March 10 and 11. They will review revisions to the State Emergency Operations Plan and participate in a facility operational briefing. State agencies with primary responsibility for flood preparedness and response activities will participate in a tabletop exercise on March 19 at the

EOC.

The St. Paul District of the U.S. Army Corp of Engineers and North Dakota Emergency Management are conducting Flood Preparedness Meetings in eastern North Dakota. Also participating in the meeting are representatives of the State Water Commission, National Guard and the NWS. The purpose of these meetings is to discuss with local officials the procedures for requesting assistance and the type of assistance available from various federal and state agencies. Meetings days, times and locations are as follows:

Date	**City**	**Time**	**Location**
Feb 22	Valley City	1:30 p.m.	Basement of the Barnes County Courthouse
Feb 23	Wahpeton	9:00 a.m.	North Dakota State College of Science, Student Center -- Plains Prairie
Feb 24	Cavalier	9:30 a.m.	Pembina County EOC
Feb 24	Grand Forks	2:00 p.m.	Grand Forks Civic Auditorium
Feb 25	Fargo	9:00 a.m.	Regional Training Center 2802 N. University Drive

The Ludden City Mayor and the Dickey County Commission have issued Disaster Declarations for the city of Ludden. Excessive spring and fall rains and above normal water tables have resulted in damages to streets, homes, businesses and other public facilities. The N.D. Department of Health has inspected overflowing septic tanks that have resulted because of the area's excessive ground moisture and overland flooding.

Efforts to Mitigate Future Flood Damages

Since 1993, the state of North Dakota, FEMA and local governments have demonstrated a high level of commitment to the acquisition of structures in flood-prone areas, removing 1,017 structures from flood-related dangers. Through the Hazard Mitigation Grant Program (HMGP), 600 flood-damaged homes are being acquired, removing people and property from flood-related danger. These acquisition/relocation projects have occurred in the following cities: Drayton, Fargo, Grafton, Grand Forks, Harwood, Lisbon, Mott, Pembina, Valley City and Wahpeton. Counties with acquisition and relocation projects include: Barnes, Cass, Dickey, Emmons, Grand Forks, Pembina, Ransom, Richland, Traill and Ward. The Community Development Block Grant (CDBG) program, through the U.S. Economic Development Administration, has helped in the acquisition of 417 structures.

In addition to acquisition projects, HMGP initiatives have been designated for 65 infrastructure projects. These projects include: lift stations, flood proofing of critical facilities, removable floodwalls, diversion projects, ice dusting, easements, storm sewers and flapgates. While most projects have occurred in eastern North Dakota, infrastructure projects have taken place in western North Dakota to include Beulah, Mandan, Bismarck and Burleigh County. Statewide projects initiated through HMGP funds include the living snow fence initiative; lift station, storm sewer, diversion and drainage projects; and ice dusting of rivers.

The HMGP Program has also been used for the purchase of easements to prevent future development in floodways and 100-year floodplains.

Through the North Dakota Individual and Family Grant Program (IFGP), a total of 49 grants were for eligible repair items to mitigate future damages. These grants were for eligible flood repairs to include installation of interior drain systems, sump pumps, window wells and covers, and repair and installation of gutters and downspouts. The program is administered by North Dakota Emergency Management.

7. <u>ASSISTANCE NEEDED:</u> None at this time, with the exception of continuing technical support.

8. <u>OUTSIDE HELP ON SCENE</u>: No outside assistance has been reported at this time.

9. <u>OTHER:</u> Situation Reports published by the N.D. Division of Emergency Management are posted on the Division's Internet home page. The address is: http://www.state.nd.us/dem.

Douglas C. Friez, State Director